



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,595	02/15/2005	Toshihiro Keishima	8861-516US(P31810-01)	8824
570	7590	03/31/2006	EXAMINER	
AKIN GUMP STRAUSS HAUER & FELD L.L.P.			LEUNG, PHILIP H	
ONE COMMERCE SQUARE			ART UNIT	
2005 MARKET STREET, SUITE 2200			PAPER NUMBER	
PHILADELPHIA, PA 19103			3742	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/524,595

Applicant(s)

KEISHIMA ET AL.

Examiner

Philip H. Leung

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 43-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-48 and 50 is/are allowed.
- 6) ☒ Claim(s) 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2-15-05 & 9-15-05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The drawings filed 2-15-2005 are acceptable.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 49 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation “a bonding insulating material containing woven cloth or nonwoven cloth immersed in a non-cured or half-cured rubber or thermoplastic resin, and that said second insulating material and another second insulating material are bonded by heating.” at the end of the claim is unclear because of use of multiple alternatives “or” linking together and forming many possible combinations. Is it “(woven cloth or nonwoven cloth) immersed in a (non-cured or half-cured rubber) or thermoplastic resin”, “woven cloth or (nonwoven cloth immersed in a non-cured or half-cured rubber) or thermoplastic resin”, “(woven cloth or nonwoven cloth) immersed in a (non-cured or half-cured rubber or thermoplastic resin)”, “(woven cloth or nonwoven cloth) immersed in a (non-cured or half-cured) (rubber or thermoplastic resin)” or other combinations? Furthermore, “said second insulating material and another second insulating material are bonded by heating” as the structural relation of “another second insulating material” with other elements has not been defined. Clarification and correction are required.

Art Unit: 3742

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 49, as far as the claim is understood and proper, is rejected under 35 U.S.C. 103(a) as being obvious over Fujikura Ltd. (JP 5-298930) (cited by the applicant), in view of Lake et al (US 3,662,461).

Fujikura shows an induction heating coil having a coil portion formed of a coil wire serving as a coil conductive wire and comprising wires whose conductors are covered with a first insulating material (3) or stranded wires 1 each obtained by bundling and twisting a multiplicity of said wires, the outer circumferences thereof being provided with a second insulating material 4, 6 partly or wholly, and said coil wire being wound a predetermined number of turns so as to have a predetermined shape, and said coil portion being configured that said second insulating material has an adhesion function generated by carrying out predetermined heating and is a bonding insulating material (see Figures 1-3 and the English abstract). It does not specify that the insulating material is a woven cloth or nonwoven cloth immersed in a non-cured or half-

Art Unit: 3742

cured rubber or thermoplastic resin. Lake shows an inductive coil formed of a coil layers with a multiple layers of non-woven cloth with a curable resin as insulating material (see Figures 1-3, the abstract, col. 1, line 40 – col. 3, line 63). It would have been obvious to an ordinary skill in the art at the time of invention to modify Fujikura to use cloth immersed in semi-cured resin as insulating material for the inductive coil for better electrical insulation in order to handle high voltage, in view of the teaching of Lake.

6. Claims 43-48 and 50 are allowed.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ortmanns et al (US 4,106,709) is further cited to show the use of fabric as insulation material for an induction heating coil (see col. 1, lines 9-37).

Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (703) 308-1710.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Philip H Leung". The signature is fluid and cursive, with a large initial "P" and "L".

Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
3-28-2006